

FIG. 1

REGIONAL FACTORS

terrain including mountains, hills and trees

signal reflections off buildings or other structures

EMF interface

microwave interference

radio frequency interference

mixing (channel overlap or frequency separation) of an interfering signal with the desired signal resulting in intermodulation and added noise

200

DYNAMIC FACTORS

weather

storms

humidity

seasonal variations

220

RETRANSMISSION FACTORS

from transmitter to transmitter to set-top box

from transmitter to satellite to terrestrial set-top box

from transmitter to satellite to transmitter to set-top box

240

FIG. 2

Error Correction Policy Application

controls and optimizes bandwidth and Quality of Service (QOS) of a given broadcast based on regional factors including terrain, dynamic factors including weather and season, and retransmission factors

compares the transmitted data errors to at least one of a predetermined tolerable transmitted data error level and a predetermined tolerable transmitted data error level for a predetermined time period

utilizes error correction coding and error detection coding

utilizes Forward Error Correction (FEC)

dynamically adjusts error correction levels

utilizes convolutional (tree) codes and block codes

measures bit error rates in terms of quantity of bit errors occurring over some unit of time

no other error analysis input is required for error correction other than error reporting by the set-top box

FIG. 3

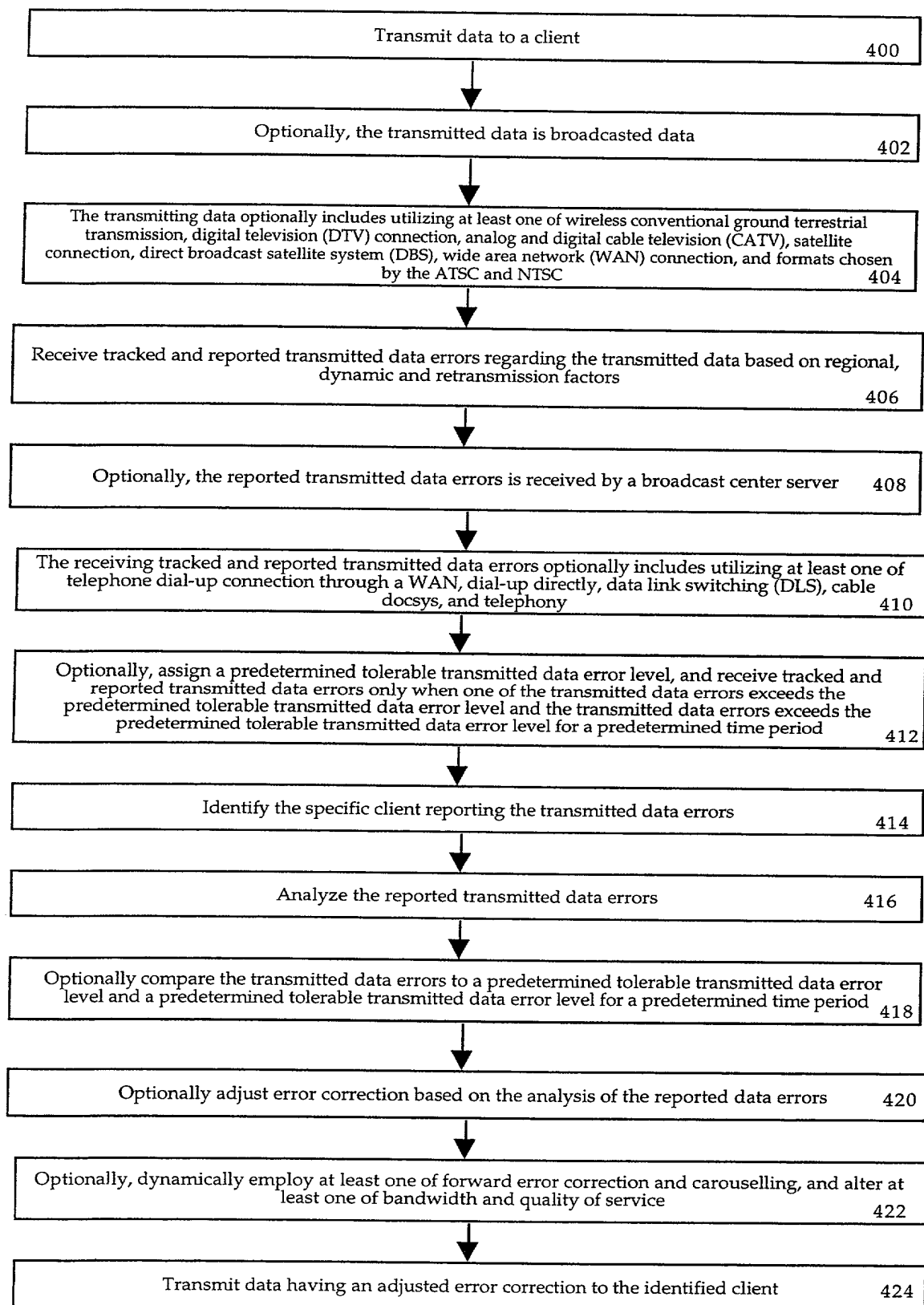


FIG. 4

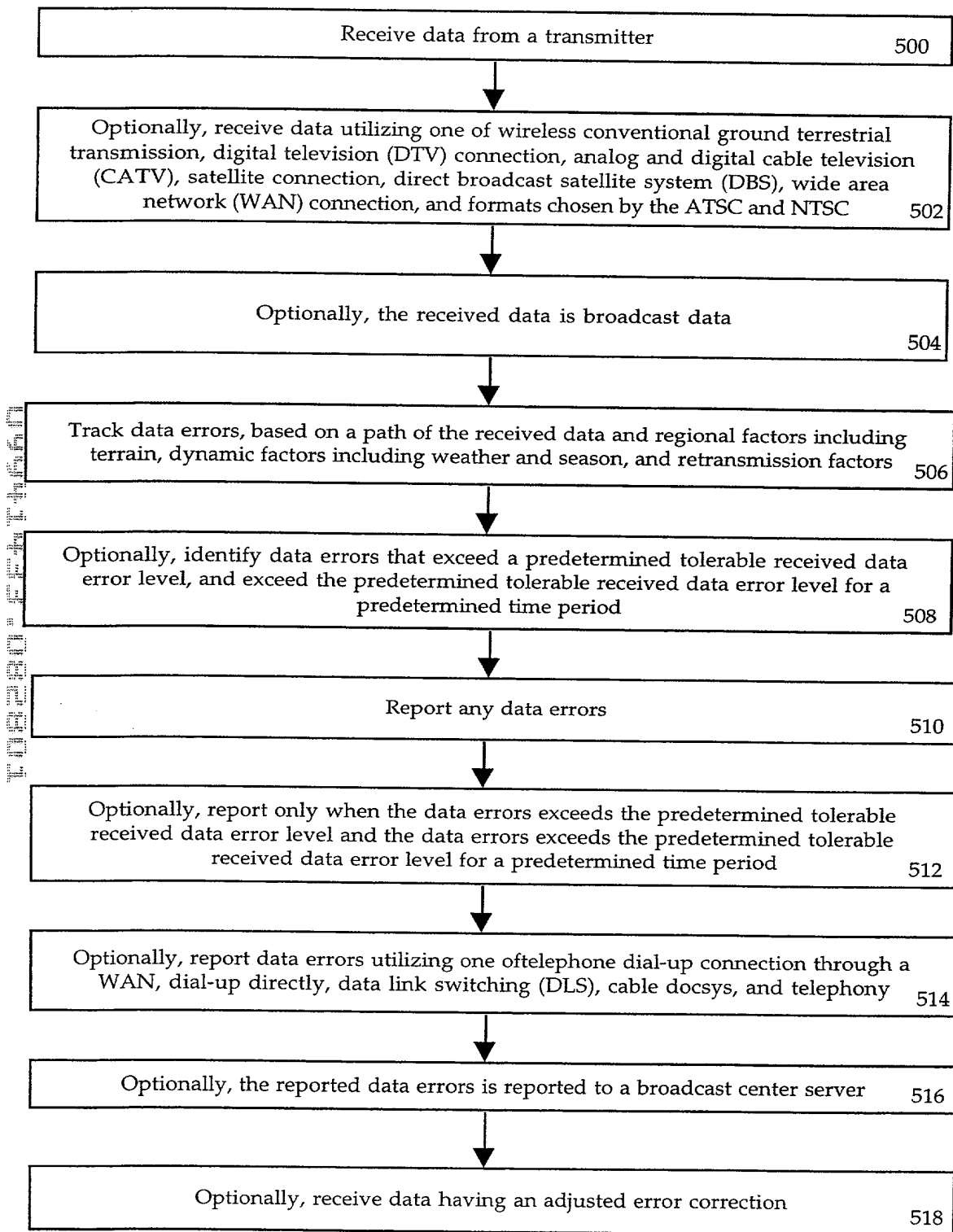


FIG. 5